

# **Er-DOPED SUPERFLUORESCENT FIBER SOURCE WITH ENHANCED MEAN WAVELENGTH STABILITY**

## **Abstract of the Disclosure**

An erbium-doped (Er-doped) superfluorescent fiber source (SFS) has an enhanced mean wavelength stability. A method determines an estimated mean wavelength of a SFS. The method includes providing an Er-doped SFS having an actual mean wavelength. The method further includes configuring the SFS such that the actual mean wavelength has a dependence on the temperature of the EDF. The method further includes obtaining the dependence of the actual mean wavelength on the temperature of the EDF. The method further includes measuring the temperature of the EDF. The method further includes calculating the estimated mean wavelength using the measured temperature of the EDF and the dependence of the actual mean wavelength on the temperature of the EDF.

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